



*Physicians in the Community
Scholarly Pathway
Student Project Showcase 2021*



*Physicians in the Community
Student Project Showcase*

*MCW-Central Wisconsin
Thursday, August 12, 2021
5:00 pm – 6:00 pm*

Our Goal

All students who train at the Medical College of Wisconsin-Central Wisconsin regional campus will become community-engaged physicians. This means that they will reflect on the impact that the social determinants of health have on their patients' lives and advocate for the overall health of the communities where they choose to practice.

Over the two-year Physicians in the Community course, students forge relationships with community members across many professional disciplines and explore local health priorities. In partnership with community mentors, the students identify community needs, collaborate to design and implement a community-engaged scholarly project, and develop presentations to share their results. Many of the students are building upon projects started by previous medical students, and projects will continue to evolve to meet the needs of our Central Wisconsin community.

We would like to thank our many community teachers and community mentors, as well as the Physicians in the Community Advisory Board for their input into the training of our future doctors, many of whom will return to live and work in Central Wisconsin communities.

Welcome & Opening Remarks

- Corina Norrbom, MD

Featured Project Presentations

- Colton Brown - LENA's Little Learners: Using Validated Screening Tools to Detect Developmental Delays During a Pandemic
- Amanda Wright - Medical Students as Effective Mentors to Teenagers with Adverse Childhood Experiences (ACEs)
- Ciera Danen - Pap Smear Guidelines in High Risk Populations
- Margaret Lieb - Seeking Peer Outreach (SPO): An integrated tiered approach to address stigma and isolation in medical education
- Vince Berry and Marko Ivancich - The Burden of Unreported mTBIs on Midwestern Skiers & Snowboarders and Cranium Crew: Peer Mentorship to Improve Concussion Literacy and Reporting

Community Engagement Fund Awards & Closing Remarks

Amy Prunuske, PhD



Student Projects

- *Satchel Beranek, Improving Down Syndrome Outcomes Through Parental Education*
- *Greta Berger, COVID-19: Engaging Hmong Populations in Bi-Directional Communication*
- *Vince Berry, The Burden of Unreported mTBIs on Midwestern Skiers & Snowboarders*
- *Colton Brown, LENA's Little Learners: Using Validated Screening Tools to Detect Developmental Delays During a Pandemic*
- *Ciera Danen, Pap Smear Guidelines in High Risk Populations*
- *John Feemster, Evaluation in Outcomes in LENA Start Marathon County*
- *John Geissinger, Health Management Psychology in Teenagers*
- *Katherine Graebel-Khandakani, Effects of COVID-19 on the Perceptions of Health & Cancer Care Delivery in Central Wisconsin Cancer Patients*
- *Phillip Hartfield, Creating Connections with Chromebooks during COVID-19*
- *Marko Ivancich, Cranium Crew: Peer Mentorship to Improve Concussion Literacy and Reporting*
- *Dima Jaber, Centering Hmong Voices and Stories to Better Understand Disparities and Healthcare Needs*
- *Karly Johannsen, CBD and You: Assessing the Knowledge and Perceptions of CBD Products*
- *Margaret Lieb, Seeking Peer Outreach (SPO): An integrated tiered approach to address stigma and isolation in medical education*
- *Mercedes Miller, The Neighbors' Place Recipe Book*
- *Sarah Steffen, Hispanic and Hmong Community Health Needs Assessment: Focus Groups to Inform Free Clinic Services*
- *Shelby Stewart, Key Risk Factor Related to High Job Attrition Rates Among Joseph Project Graduates*
- *Hayden Swartz, Caring for Crisis: Crisis Assessment Response Team (CART) Analysis in addressing law enforcement impact on mental health and substance use disorders in the community*
- *Andrew Tondryk, Connecting Medical Students with Seniors in Central Wisconsin During a Pandemic*
- *Zachary Wallace, Child Psychiatry Consultation Program: Utilization and Satisfaction Among Primary Care Providers*
- *Amanda Wright, Impacts of Teen Mentoring Program on Medical Student Mentors*
- *Katelyn Zuelsdorff, The Healthy Babies Project*



Medical Student: Satchel Beranek

Project Title: Improving Down Syndrome Outcomes Through Parental Education

Community Mentor: Erica Erdman, Gigi's Playhouse, Wausau

MCW-CW Collaborator: Corina Norrbom, MD

Purpose: Down Syndrome has many well-known associated health conditions. Physicians have poor adherence for the American Academy of Pediatrics (AAP) health screening guidelines for children with Down Syndrome. Educating parents of Down Syndrome individuals about their child's condition and potential health needs, as well as the AAP guidelines, will allow them to actively contribute to their child's wellbeing.

Methods: Parents attended an educational session highlighting common health conditions in Down Syndrome and the AAP guidelines. Parents were given handouts with the guidelines and were encouraged to advocate with this information at their child's next appointment. Parents participated in surveys before and after the presentation, as well as 6 months after the presentation.

Results: Survey results showed that most respondents felt comfortable discussing the information presented with their child's doctor. 83% of respondents agreed that they would use the information in a future doctor's appointment. All respondents would recommend the educational session to other parents with Down Syndrome, including new parents. Surveys distributed 6 months post session showed that 66% of respondents had used information they learned at the session during a physician visit.

Conclusions: Survey results indicate that information presented in the session was helpful to parents and was used in actual physician visits. More education sessions will be provided as demand dictates. The education session could be adapted to be presented throughout the Gigi's playhouse national network. Future directions of this project include addressing physician adherence to the AAP guidelines.

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Medical Student: Greta Berger

Project Title: COVID-19: Engaging Hmong Populations in Bi-Directional Communication

Community Mentor: Julie Bunczak, MEd, Wisconsin Institute for Public Policy and Service; Mang Xiong, BA, Hmong Wisconsin Chamber of Commerce

MCW-CW Collaborator: Corina Norrbom, MD, Amy Prunuske, PhD, Dima Jaber, M2

Purpose: Hmong communities in North Central Wisconsin have not been consistently reached through public health communication. In a pandemic, it is critical to reach all populations within a community to mitigate the spread. The aim of this project is to decrease the impact of COVID-19 by establishing an innovative communication channel between health systems, public health officials, resources agencies, and Hmong and Hispanic communities in North Central Wisconsin, incorporating intentional listening to community members.

Methods: To build this sustainable communication bridge, well-connected Hmong Community Health Worker (CHWs) facilitated communication with Hmong communities. CHWs informed message adaptation and leverage existing social infrastructures and messaging platforms (such as social media and newspaper). CHWs were trained on basic COVID-19 prevention strategies and were provided with necessary supplies, such as cloth masks, to share within the communities. iPads distributed to CHWs provided an effective tool to combat literacy barriers to share education on COVID-19. CHWs gathered information regarding community concerns, information gaps, and messaging platforms currently used by the community and compiled this data within Qualtrics form to be analyzed by MCW medical students.

Results: Project outcomes tracked include the number of people reached by CHWs; knowledge about COVID prevention and recommendations; preventative behaviors; community needs on accessing resources and health care information; current views surrounding vaccination. The Marathon County Health Department and community resource centers were able to utilize CHW connections to improve capacity and trust when trying to communicate vital information to Hmong populations.

Conclusions: The established bi-directional communication bridge has allowed for identification of health needs, resulting in action steps that address them. The goal moving forward is to maintain and strengthen relationships built to reduce the impact of COVID-19, increase vaccination rates, and address health needs beyond. The authentic connections established through this project are foundational in achieving health equity, true inclusivity, and belonging in north central Wisconsin.

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Medical Student: Vince Berry

Project Title: The Burden of Unreported mTBIs on Midwestern Skiers & Snowboarders

Community Mentor: Dr. Andrew Beaumont, Aspirus; Dr. Michael Clark, Ascension; and Dr. Jeffrey Amundson, MCW-CW

MCW-CW Collaborator: Corina Norrbom, MD

Purpose: Concussions are generally not considered to be life-threatening injuries, which, in most circumstances is correct. Yet, the range of symptoms, road to recovery, and future sequela can vary dramatically. Understanding this degree of difference is essential while considering the severity of concussions and the importance of reporting followed by adequate treatment. The varying degree of repercussions for mild traumatic brain injuries leads to the importance of emphasizing concussion safety, recognition of symptoms, and post-concussion protocol.

Adolescents in traditional sports such as football or soccer receive a standardized form of instruction on concussions. However, those who may participate in more individualized activities, such as skiing or snowboarding lack appropriate education on the matter. Due to the lack of required head injury education and the inherent dangers of downhill skiing and snowboarding, we suspect this is an environment where injuries, particularly minor traumatic brain injuries occur without a valid diagnosis as well as lacking proper treatment. Therefore, this community project aims at understanding the degree of unreported minor traumatic brain injuries (mTBIs) in the adolescent and young adult population of midwestern skiers and snowboarders by addressing three questions:

- Is there a burden of undiagnosed concussion on Midwest skiers/snowboarders?
- Who are they happening to?
- Why do they go unreported?

Methods: A 29 question survey was given anonymously to Midwestern skiers and snowboarders. The Qualtrics data was analyzed.

Results:

- 20.35% of the subjects have experienced a suspected concussion
- 10.47% of the subjects have experienced a diagnosed concussion
- Ages 14-17 had the highest response of “yes” to having a suspected & diagnosed concussion in the past 3 years

Conclusions:

- There is a burden of undiagnosed concussions among skiers and snowboarders
- Adolescents and young adults are most at risk for diagnosed and suspected concussions
- There are multiple reasons why mTBIs were not reported

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Medical Student: Colton Brown

Project Title: LENA's Little Learners: Using Validated Screening Tools to Detect Developmental Delays During a Pandemic

Community Mentor: Carol Wesley, M.S., Achieve Center, Inc.

MCW-CW Collaborator: Corina Norrbom, MD

Purpose: Early childhood development is critical for building prosperous communities. LENA Start focuses on fostering language skills in children by encouraging early talk between parents and kids. Research examining children participating in the Wausau LENA program indicates that a significant number of participants may have concerns for meeting milestones. This raises questions about the prevalence of developmental delays, both within the LENA cohort and the local population at large. The purpose of this project was to provide a comprehensive developmental screening opportunity for LENA participants. Results were shared with parents, and children identified with possible delays were connected to appropriate resources. Additionally, data from the comprehensive screening tool were compared to the Snapshot² screening tool used by LENA, to evaluate the validity of the tool and identify potential weaknesses.

Methods: 10 LENA families were recruited to participate in this pilot project. The Ages and Stages-3 questionnaire[®] (ASQ) was administered by a medical student via videoconference. During the virtual appointments, observational data was collected by a local expert in child development.

Results: Half of the participants fell below the ASQ cutoff in 1 category indicating "further assessment may be needed." The Snapshot[™] tool performed comparably to the ASQ in detection of language exclusive delays only. Furthermore, a virtual appointment format was identified as a viable tool in the assessment of child development.

Conclusions: Fostering early language development can help close achievement gaps and even reduce future disease burden. The need exists for screening opportunities to be offered to the community on a larger scale to help catch delays early and connect children to remediation resources before developmental windows close. Additionally, LENA should consider broadening the scope of their screening tools to encompass more co-developing domains such as motor, problem solving and personal-social skills.

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Medical Student: Ciera Danen

Project Title: Pap Smear Guidelines in High Risk Populations

Community Mentor: Jessica Scharfenberg and April Waraksa, Healthfirst Network, Inc.

MCW-CW Collaborator: Amy Prunuske, PhD

Purpose: Most patients at Healthfirst Network, Inc. are at an increased risk of developing cervical cancer when compared to the patient populations used to develop the new Pap Smear guidelines published by the American Cancer Society (ACS). Due to this, and the increasing colposcopy rates seen at Healthfirst, this study was conducted to determine if there are any certain risk factors seen in the patients at Healthfirst that would suggest earlier screening when compared to the current ACS guidelines.

Methods: A retrospective chart review of 377 patients who underwent a colposcopy between April 2012 and October 2019 at Healthfirst Network, Inc. was conducted. Basic demographic information, previous pap smear history, contraceptive use, and sexual practices were collected and evaluated using Excel.

Results: The majority of patients (65.8%) reported never or sometimes using condoms and 32.3% were found to have a history of HPV prior to colposcopy. Of the 377 patients, 74 (19.6%) were found to have a positive pap smear that led to a colposcopy less than 5 years following a negative pap smear.

Conclusions: The data found in this study supports more frequent testing in the patient population at Healthfirst Network, Inc. than recommended by the current ACS guidelines. In an effort to provide the best patient care, this study will be continued to include data through 2021, and the data set will be expanded to evaluate smoking and Gardasil vaccination rates at health first.

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Medical Student: John Feemster

Project Title: Evaluation in Outcomes in LENA Start Marathon County

Community Mentor: Emily Hanneman, Children's Wisconsin

MCW-CW Collaborator: Corina Norrbom, MD and Amy Prunuske, PhD

Purpose: LENA Start Marathon County started in the Spring of 2018 and focuses on language development in children up to 3 years old. Previous research has shown that talking more with babies is one of the most critical elements in early brain development and is associated with better outcomes later in life.

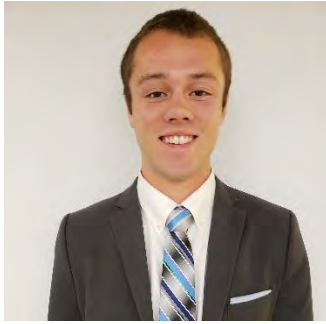
Methods: LENA Start is a 10 or 13 week program located at sites throughout Marathon County. Parents are given a recorder to place on their child for one day a week while the parents are taught tips to increase conversation with their children. Recorders measure specific variables that are indicators of the amount of conversation taking place. Variables that were measured were Conversation Turns, Adult Word Counts, and Child Vocalizations. These variables were measured throughout the course and correlated with demographic variables to understand specific outcomes of LENA Start Marathon County.

Results: Participation in the class is significantly increasing Conversation Turns and Adult Word Counts ($p < 0.001$ for both). Conversation turns are significantly correlated with increasing Adult Word Counts ($p < 0.001$). Among speaking families demonstrated better outcomes than English speaking families in Conversation Turns and Child Vocalizations ($p=0.05$ and $p=0.01$, respectively). Lower education level parents demonstrated fewer Adult Word Counts than higher education level parents ($p=0.03$)

Conclusions: LENA Start Marathon County is significantly increasing the amount of conversation occurring between parents and their children. Specific demographics contribute towards better outcomes in the program. This knowledge can be used to further target populations that may have higher risk children. Further research will need to be done to determine the impact of COVID-19 and any confounding variables it may have contributed towards the amount of childhood vocalizations.

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Medical Student: John Geissinger

Project Title: Health Management Psychology in Teenagers

Community Mentor: Jessica Truax, Wausau East High School

MCW-CW Collaborator: Amy Prunuske, PhD and Joshua Shupe, MD

Purpose: The purpose of the project was to evaluate if educational sessions that utilize cognitive behavioral strategies can help promote positive self-esteem and increase emotional intelligence in teenagers at Wausau East High school. The ultimate goal is to see if employing cognitive behavioral techniques can help improve mental health within the school-age population. The project evaluated different classes over the course of three semesters.

Methods: Students in Jessica Truax's health and adults in medicine courses at Wausau East High School responded to surveys before and after educational sessions on cognitive behavioral therapy and health management focused on goal setting. The educational sessions implemented included video lectures and later an interactive module-based podcast series. Ten Schutte Self-Report Emotional Intelligence Test type questions were asked to assess change in emotional intelligence.

Results: An unpaired t test was calculated using the data from before and after the educational sessions. The two-tailed P value equals 0.0380 which is considered statistically significant. The calculated difference in mean equals 3.26 with a 95% confidence interval from 0.18 to 6.33. 86% of the students reported that they liked the module format and 59% reported that the information taught will be useful in their future.

Conclusions: This study could be expanded to other schools, classes, or non-school age groups in the Wausau community to evaluate the efficacy of employing cognitive behavior therapy techniques. The mechanics of the study could be refined to minimize limitations, including educating the population on how the study works to promote unique identifier consistency and the importance of completing both pre- and post-surveys.

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Medical Student: Katherine Graebel-Khandakani

Project Title: Effects of COVID-19 on the Perceptions of Health & Cancer Care Delivery in Central Wisconsin Cancer Patients

Community Mentor: Beth Knetter, Aspirus

MCW-CW Collaborator: Amy Prunuske, PhD and Karly Johannsen, M3

Purpose: Over the course of 2020 and 2021, Wisconsin was transformed into one of the nation's COVID-19 hotspots and almost every aspect of daily life has been interrupted from who we see day-to-day to what we eat to how often we visit our healthcare providers.

Although it is too early to determine the full impact of the COVID-19 pandemic on regional cancer patients, this study investigates how the pandemic has affected patients receiving treatment at Aspirus Regional Cancer Center through early 2021 by analyzing the perceptions of healthcare delivery as well as changes in their personal health throughout the COVID-19 pandemic.

Methods: Participants were asked to complete two surveys, approximately four months apart.

The first survey collects:

- Demographics
- Basic health Data
- Perceptions of healthcare delivery
- Physical Activity Data
- Social Activity Data
- Nutrition Data
- Behavioral Health Data

The second survey collects information in the same categories as survey 1 and is meant to determine changes in participant health and healthcare delivery since the first survey as the rate of COVID-19 vaccination increases.

Conclusions: The participants surveyed are overwhelmingly satisfied with the care that they have received at Aspirus Regional Cancer Center both before and throughout the COVID-19 pandemic with several indicating that they were impressed with how physicians and staff have balanced the increased need for protective measures with excellent patient care.

The pandemic has affected regional cancer patients in much the same way as other members of the community. There appears to be a decreased consumption of fresh fruits and vegetables, fewer interactions with family and friends, and lower activity levels. In cases where participants increased consumption of fresh fruits and vegetables, participants reported this as a conscious change related both to their cancer status and more time spent at home. Many participants noted that changes in their health and activity was more closely related to their health status as cancer patients than to the pandemic itself.

It is interesting to note that while participants noted increased social interactions with family and friends and no change in mental health in the time between survey 1 and survey 2, two-thirds of participants had an increased score on depression screening.

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Medical Student: Phillip Hartfield

Project Title: Creating Connections with Chromebooks during COVID-19

Community Mentor: Erin Wells, Aging & Disability Resource Center of Central Wisconsin

MCW-CW Collaborator: Amy Prunuske, PhD

Purpose: The objective of this project was to determine whether electronic devices could be used to decrease loneliness in the elderly population during the COVID-19 pandemic.

Methods: During May 2020, 15 participants were recruited at the Island Place Apartments located in Wausau, Wisconsin. Eligibility criteria included (1) income at or below 250% of the federal poverty level, and (2a) age \geq 60 years old, or (2b) age 18-59 with a disability.

The participants were subsequently enrolled in an “Introduction to Your Chromebook” course, which taught how to use the Chromebooks along with various online applications including but not limited to email, video-communication services, search engines, banking, and telehealth

Participants completed a survey composed of the UCLA Loneliness Scale and Lubben Social Network scale, administered on day one, at four weeks, and at twelve weeks following the beginning of the course. In addition, four participants were interviewed for qualitative feedback following the study.

Results: Six participants withdrew their participation and were not available for survey or interview follow-up. Reasons included conflicting medical problems and anxiety.

Data showed that at the 12-week time interval, UCLA Loneliness scores decreased by approximately 19%, and Lubben Social Network scores increased by approximately 13% compared to the beginning of the study.

Conclusions: Loneliness scores decreased and social network scores increased following the Chromebook course. The results indicate that either Chromebook use, the “Introduction to Your Chromebook” course, or the combination of both contributed to increased feelings of social connectivity in our study group.

If this study were to be repeated, we would recommend using a control group, which we were unable to recruit. We also recommend utilizing a larger sample size so that a formal statistical analysis may be performed. Lastly, we recommend following up with participants who withdrew participation.

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Medical Student: Marko Ivancich

Project Title: Cranium Crew: Peer Mentorship to Improve Concussion Literacy and Reporting

Community Mentor: Dr. Andrew Beaumont, Aspirus; Dr. Michael Clark, Ascension

MCW-CW Collaborator: Corina Norrbom, MD and Vince Berry, M2

Purpose: Develop a public health campaign utilizing community engagement, peer mentorship, and accessible resources to increase concussion literacy among adolescents and young adults in the extreme sports community. In the United States, over 3 million concussions occur annually. It is suspected as many as half of these concussions are unreported, and therefore likely untreated. It is understood that isolated well-managed concussions, where the brain is allowed to adequately recover, do not increase the risk of long term neurodegenerative disease. However, continued exposure of an injured brain to persistent impacts greatly increases the length of recovery risk of permanent complications. Therefore, increasing concussion reporting and treatment is of extreme importance.

Methods: Our intervention to increase concussion literacy and reporting involves three approaches: educational seminars for various community groups, creation of the Cranium Crew peer educator program, and the development and dissemination of free accessible digital resources and educational handouts. Post-session focus group interviews and surveys are conducted.

Results: Preliminary focus group and survey data is showing success in increasing concussion literacy, willingness to report suspected concussion, and willingness to seek treatment from medical provider.

Conclusions: Despite major advancements in diagnosis and treatment, many suspected concussions remain unreported. We will continue to evaluate the impact of our community education and peer education programs on concussion literacy and reporting.

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Medical Student: Dima Jaber

Project Title: Centering Hmong Voices and Stories to Better Understand Disparities and Healthcare Needs

Community Mentor: Dr. Colette Solatka, MCW-CW and Sheng Khang, NC-AHEC,

MCW-CW Collaborator: Amy Prunuske, PhD, and Yer Thor

Purpose: The purpose of this project is to identify the Hmong community's concerns and priorities through interviews and storytelling. By allowing community members to identify disparities and needs, resources can be used towards initiatives that the community wants addressed, which can be used to develop solutions that are more effective and long lasting.

Methods: Participants were recruited through the Hmong American Center and were asked a series of standardized questions to identify the needs of the Hmong community in Wausau. Questions were also asked to gain more insight on interpreter services in Marathon County. Interviews were then translated and transcribed, and major themes were identified.

Results: This project identified many concerns among the Hmong community in Marathon County. The majority of findings fell underneath two categories, health and family.

Regarding health issues, there is still a high level of mistrust in Westernized medicine, particularly among the older Hmong generations that immigrated here many years ago. There is also concern regarding lack of mental health resources.

Regarding family, many felt disconnect between the younger and older generations and are seeking for ways to connect their families.

Conclusions: More resources regarding healthcare, such as mental health resources and better interpreter services, are needed within the Hmong community. Proposed solutions include better availability for interpreters as well as more Hmong councilors, particularly in middle and high school.

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Medical Student: Karly Johannsen

Project Title: CBD and You: Assessing the Knowledge and Perceptions of CBD Products

Community Mentor: Susan Krolow, United Way of Marathon County

MCW-CW Collaborator: Amy Prunuske, PhD

Purpose: The purpose of this project is to assess the knowledge level, perception, and comfort level discussing CBD products after an informational presentation. Participants include members of Marathon County in Wisconsin.

Methods: An informative, virtual presentation was given to various members of Marathon County about CBD products (production, use, FDA regulations, etc.). Three presentations were given from October 2020 to February 2021. After the presentation, participants were given a survey that assess their knowledge level, perception, and comfort level discussing CBD products with their health care providers, both before and after the presentation. The data was then assessed to determine if there was any difference between before and after the presentation.

Results: Results indicate that the knowledge level, perception level, and comfort level with talking about CBD products improved after listening to the informational presentation. Graphical representation of results can be found in the poster.

Conclusions: In general, it appears that the knowledge level of CBD products improved with the presentations. The participants also felt that they would be more comfortable speaking to their health care providers about CBD products, which is both beneficial to the patient and the provider.

Additionally, the perception of CBD products seems to have improved after listening to the presentation, potentially due to the new knowledge they gained.

Interestingly, while perceptions and knowledge improved, most participants wouldn't change their behavior regarding CBD products. In other words, they wouldn't choose to use the products if they weren't already (and vice versa).

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Medical Student: Margaret Lieb

Project Title: Seeking Peer Outreach (SPO): An integrated tiered approach to address stigma and isolation in medical education

Community Mentor: Dr. David Cipriano, Dr. Jeff Fritz, and Dr. Barbara Moser, Medical College of Wisconsin

MCW-CW Collaborator: Amy Prunuske, PhD and Corina Norrbom, MD

Purpose: To develop a peer led program to combat mental health issues that accompany medical school and to evaluate its effectiveness in providing benefit towards medical students. While still in the preliminary stages, we sought to first identify areas that are especially relevant by surveying current medical students to better direct the development of our program.

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Medical Student: Mercedes Miller

Project Title: The Neighbors' Place Recipe Book

Community Mentor: Mallory McGivern & Bettina Steadman, The Neighbors' Place

MCW-CW Collaborator: Corina Norrbom, MD

Purpose: Food insecurity is a major social determinant of individual and community health and is defined by the U.S. Department of Agriculture (USDA) as limited or uncertain access to nutritionally adequate foods¹. Impacting approximately 37 million people in 2018 in the United States alone², food insecurity is one of the nation's leading health issues by its association with chronic diseases such as diabetes, hypertension, obesity, and heart disease³.

The Marathon County Hunger Coalition reported that Marathon County food pantries provided food to people in need 64,000 times in 2009. In 2019, that number nearly tripled (over 185,000), illustrating a drastic upward trend of food insecurity. The Neighbors' Place is a community center that has alleviated this burden by providing food distribution in addition to several other services for Marathon County residents.

After a preliminary survey revealed that the majority of visitors of The Neighbors' Place struggle with food availability, time, and meal ideas, a community cookbook was created. The primary goal was to evaluate the utilization and impact of a community cookbook on visitors' abilities to maximize their groceries and meet their desire for more options.

Methods: A collection of recipes were compiled into a community cookbook based off common food pantry items. 161 visitors were offered a copy or guidance to accessing it online if they were interested or believed it would be a helpful resource. They received a QR code-linked survey to give feedback. A 2-month follow-up survey was handed out to see how many visitors had become aware of and used the recipe book.

Results: 150 out of 161 visitors expressed interest in using the cookbook. Of those, only 6 gave feedback with the QR-linked survey. 27 visitors filled out the 2-month follow-up survey, and only 5 were familiar with the cookbook. Of the remaining who hadn't heard of it, 19 wanted to look and use it. All participants who used at least one recipe said that it helped them in the kitchen.

Conclusions: Anecdotal evidence and survey results show that this a potentially valuable tool for The Neighbors' Place visitors to receive in addition to their groceries. However, most visitors who filled out the follow-up survey were not aware of recipe book. Further promotion and data collection are needed to evaluate the full range of impacts and efficacy of this resource.

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Medical Student: Sarah Steffen

Project Title: Hispanic and Hmong Community Health Needs Assessment: Focus Groups to Inform Free Clinic Services

Community Mentor: Dr. Jeffrey Oswald, Marshfield Clinic Stettin Center, Wausau Free Clinic

MCW-CW Collaborator: Corrie Norrbom, MD

Purpose: The purpose of this project was to inform the development of the new Wausau Free Clinic and to improve its accessibility and services for Hispanic and Hmong community members.

Methods: Two focus groups were conducted via Zoom. Focus group participants consisted of 6 Hispanic and 9 Hmong Community Health Workers. The focus group discussions explored participants' past medical experiences, current access to health care, needed medical services, and barriers or concerns about obtaining care. The focus group discussions were recorded and transcribed. Qualitative data was analyzed and assessed for emergent themes, common problems, and community needs.

Results: The top three desired services for Hispanic participants included: 1) Chronic health services 2) Women's health services 3) Immunizations. Hmong participants emphasized 1) Assistance with navigating medical systems/health literacy 2) Access to low cost or free medications 3) Immunizations. Shared concerns for both groups included: availability of trustworthy, accurate interpreters and Healthcare workers that are culturally competent and sensitive.

Conclusions: Family and friends are trusted sources of information in immigrant communities. Word of mouth and first-hand experiences from family and friends are important when deciding whether or not to use a resource. Desired services for the free clinic are largely dependent on an individual's access to insurance and affordable health care and medications.

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Medical Student: Shelby Stewart

Project Title: Key Risk Factor Related to High Job Attrition Rates Among Joseph Project Graduates

Community Mentor: Maggie Cronin, The Joseph Project-Wausau

MCW-CW Collaborator: Amy Prunuske, PhD

Purpose: Identify key factors related to participant's background that could possibly be linked to their inability to maintain employment. If we are able to identify factors, we hope to use this information for future classes and find the support needed to set applicants up for success.

Methods: The Joseph Project (JP) is a 5-day life skills and career bootcamp program that combines spiritual fitness. Sessions include topics on time management, addiction/mental health awareness, conflict resolution, and mock interviews. Students were asked to complete a risk factor survey during class time.

Upon completion, applicants have the opportunity to interview with local employers. Graduates are guaranteed free transportation for first 30 days of employment.

Results: JP students carry challenging circumstances with them as they embark upon their new chapter of employment. Mental health/addiction were a common denominator in preventing successful long-term employment. 53.9% and 38.9% stated they struggle with anxiety and depression, respectively. Additionally, less than 25% of students have their own vehicle. The JP team promises to continue to find transportation options for students even after 30 days are up, through discounted rides or support in finding a low-cost vehicle.

Conclusions: Future objectives include: #1) finding additional community partners, not just in the industrial/factory work, so that we are better able to meet the needs of students who may face barriers to physically demanding job. #2) establishing a partnership with locally trained mental health/addiction specialists so that we are able to better support students in their new journey of employment.

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Medical Student: Hayden Swartz

Project Title: Caring for Crisis: Crisis Assessment Response Team (CART) Analysis in addressing law enforcement impact on mental health and substance use disorders in the community

Community Mentor: Laura Scudiere, Marathon County Health Department

MCW-CW Collaborator: Amy Prunuske, PhD

Purpose: Psychiatric illnesses and substance use disorders are on the rise in Wisconsin, with over 100,000 never receiving treatment. Law enforcement is designated first contact with these individuals, of which the interactions have proved difficult for both officers and patients. Due to the complex nature of mental health and law enforcement officers, using a multi-agency approach, Marathon County and other partners created a designated task force to overcome the odds.

Methods: Compare admission data from pre- and post- Crisis Assessment Response Team (CART) program implementation in 2018 for NCHC, WPD, and MCSO. The primary marker to be included is number of admissions by month from 2015 to current date (June 2019) for: 1) North Central Health Care Wausau, WI, 2) Norwood Health Center Marshfield, WI, and 3) Winnebago Mental Health Services Oshkosh, WI. Of the data, scatterplot analysis for comparison will be observed to determine the rate of admissions pre- and post- CART program implementation.

Results: One year prior to CART implementation (2017) compared to the year after its implementation (2018), the rate of increasing crisis admissions, was cut in half (52%). This decrease in rate of admissions was not due to deferrals to other local institutions.

Conclusions: CART's success at flattening the curve of mental health crisis admissions with hospitalization is enough to demonstrate the benefit of expanding and implementing this framework across other law enforcement agencies.

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Medical Student: Andrew Tondryk

Project Title: Connecting Medical Students with Seniors in Central Wisconsin During a Pandemic

Community Mentor: Ruth Hebbe, Faith in Action

MCW-CW Collaborator: Amy Prunuske, PhD and Karly Johannsen, M3

Purpose: Goal was to measure the impact that phone calls between medical students and isolated elderly people made at the students' connection to the community, confidence in making connections with elderly patients, and the isolated population's wellbeing. Measured by surveys sent to both populations. It was attained, but a larger population could be used. My goal was relevant to my objective to connect medical students with the community and to help an isolated population during a pandemic. My portion of this project is completed. Can hand it off to an M2 for further data.

Methods:

- Medical students were paired with elderly residents of Marathon County (care receivers) during the COVID-19 pandemic.
- The students called the care receivers once a week to ensure they were receiving the food, medication, and care that they required.
- The students built relationships with the care receivers by making polite conversation.

Surveys were sent out to both populations (care receivers and students) to measure the impact these calls had on mental health, loneliness, and relationship building skills.

Results: This study aimed to measure the impact that connecting medical students with elderly residents (care receivers) of Marathon County had on both the student and elderly populations. The data showed these connections helped the students feel more connected to Central Wisconsin while simultaneously increasing their comfort level of talking to people from an older generation. The students felt this increased comfort level led to more confidence in their abilities as future physicians. The data also showed the majority of care receivers felt these connections made them feel less lonely and isolated. Overall, this study showed something as easy as making a phone call can have a powerful outcome.

Conclusions:

- Phone calls increased the students' comfort level of speaking with those from a different age population.
- The calls helped the students feel more confident as future physicians while also connecting them with their community.
- The majority of care receivers felt that receiving calls improved their feelings of loneliness and isolation. Most would choose to participate in receiving calls again.
- 55% of participants felt that the pandemic may have increased their isolation and anxiety, while the other 45% felt there was no difference.
- By continuing to partner with Faith in Action, we can provide more focused phone calls to those who need help receiving healthcare or just need someone to talk to.

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[Project Video](#)



Medical Student: Zachary Wallace

Project Title: Child Psychiatry Consultation Program: Utilization and Satisfaction Among Primary Care Providers

Community Mentor: Gabriella Hangiandreou, MD, Child Psychiatry Consultation Program

MCW-CW Collaborator: Amy Prunuske, PhD

Purpose: The state of Wisconsin is struggling to cope with a critical shortage of child psychiatry services. To help meet this need, the Medical College of Wisconsin partnered with the Children's Hospital of Wisconsin and the Department of Health Services (DHS) to pioneer the Child Psychiatry Consultation Program (CPCP). According to the DHS, the purpose of the CPCP is to support primary care providers in their care and management of child psychiatric concerns. This project was designed to assess satisfaction among providers who have used the program.

Methods: In 2014, the CPCP began offering psychiatry phone consultations to primary care physicians throughout the state. Demographic information was collected from providers at the time of enrollment in the program. In order to track the efficacy of the consultation service, surveys were distributed to providers after each consult. Survey items included measures of satisfaction with the program. The results of these surveys were collected and compared according to respondent demographics.

Results: Satisfaction with the program was high among all demographics surveyed. Across all items, 89.4% of respondents either agreed or strongly agreed with each survey questions. Providers consistently reported that consultations improved management of their current patients, better prepared providers for care of future patients and helped to prevent the hospitalization of their pediatric psychiatric patients.

Conclusions: Of all providers who responded to the survey, 64% felt that their CPCP consultation helped to postpone or forestall a hospitalization. If that sample is representative of all CPCP encounters, the CPCP may have helped to prevent the hospitalization of 1,986 children in Wisconsin since 2014. Further expansion of the program may be an effective way to address the shortage of child psychiatry resources in Wisconsin.

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Medical Student: Amanda Wright

Project Title: Impacts of a Teen Mentoring Program on Medical Student Mentors

Mentor: Shannon Young, Ed.D., Enrich, Excel, Achieve Learning Academy

MCW-CW Collaborators: Jeff Fritz, PhD; Corina Norrbom, MD; Olivia Newgaard, M2; Eric Weaver, M2

Purpose: Adverse Childhood Experiences (ACEs) have cumulative and negative long-term health effects. Resiliency skills are protective against the severity of these negative effects. Relationships with caring adults are beneficial for teenagers with high ACE scores. The medical student mentorship program at Enrich Excel Achieve (EEA) Learning Academy in Wausau, WI, has existed for several years, but this is the first year with a more robust and structured curriculum for medical student mentors and their adolescent mentees. This study evaluated impact of the mentoring program on the medical student mentors.

Methods: Fifteen medical student mentors of teenage students of EEA met regularly with their teen mentees for academic tutoring or a mentorship curriculum. The medical students completed online Qualtrics surveys before and after the academic second semester to assess their comfort levels with interacting with teenagers and those with high ACEs scores.

Results: Most medical students believed in the pre-assessment that they know what ACEs were and were somewhat comfortable working with teenagers and discussing traditionally difficult topics. After working with their mentees for the academic year, most medical students felt much more prepared to have difficult discussions with young people.

Conclusions: The creation of a more structured mentorship program provided many benefits. The medical student mentors learned how to have more meaningful conversations and build communication skills with the teenagers. This mentorship program will continue to expand and have more intense training in the future.

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[Project Video](#)



Medical Student: Katelyn Zuelsdorff

Project Title: The Healthy Babies Project

Community Mentor: Dr. Carolyn Nash & Eileen Eckart, Marathon County Early Years Coalition

MCW-CW Collaborator: Corina Norrbom, MD

Purpose: The purpose of this project is to identify what areas of Marathon County are being reached by the Healthy Babies videos. This information will be used to direct further efforts on reaching new populations. Three videos with the most up to date infant safety information were created. These videos discussed car seat safety, safe sleeping, and coping with crying.

Methods: After watching the videos participants took a survey giving their basic information in order to be sent a thank you gift card. The addresses of participants from Marathon County were used to create a geomap to visualize the populations currently being reached.

Results: The geomap was used to analyze the location of current participants to give a visual of what areas are being reached by the videos. It showed a higher number of participants in the Wausau area with a smaller amount of participants in more rural areas of Marathon County.

Conclusions: In conclusion, the geomap is a valuable tool in analyzing what populations are being reached by current outreach efforts as well as what areas of Marathon County could use more targeted outreach. This knowledge will be used to plan future events in communities in order to benefit the greatest amount of people with education on infant safety.

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Community Engagement Awards

The Community Engagement Award was established to help the students invest in the community and has been generously supported by Dr. David and Mary Ann Lillich, Incredible Bank, and the Dan Storey Foundation.

This fund will help support the following projects in the upcoming year:

- Mikaela DeCoster – Social Media, Kind Minds
- Ryan Gassner - Decreasing Opioid Addiction in Marathon County
- Alex Kershner – The Babies Place: Addressing Family Needs
- Sadie Jackson – Community Healing Through Art
- Marissa O’Hair – Recipe Booklet for Increased Food Literacy and Usage and Enjoyment of Healthy Produce
- Meghan Peterson – Health Screenings for Seasonal and Migrant Workers
- Andrew Sepiol – AHmong Us Program Mentorship
- Emelyn Zoromski – Emerging Literacy Parent Survey

Teaching Pins

MCW Teaching Pins recognize excellent teachers that advance medical students’ learning and support the core missions of teaching and engagement in the community. The following outstanding medical student teachers have been recognized by the MCW Curriculum and Evaluation Committee for 2020-2021.

- Dr. Eric Giordano
- Patty Zemke
- Dr. Andrew Beaumont

We would like to thank our many community partners, teachers and mentors, as well as the Physicians in the Community Advisory Board for their time and input!

Physicians in the Community Advisory Board:

- Kristine Flowers, MD – Aspirus Clinic, Antigo
- Brian Gumness – BA & Esther Greenheck Foundation
- Brian Kowalski – Wausau City Pages
- Lance Leonhard - Marathon County Government
- Michael Loy – North Central Health Care
- Ann Micholic – Kolbe Windows and Doors
- Katie Rosenberg – City of Wausau
- Joan Theurer – Marathon County Health Department
- Mang Xiong – Hmong Wisconsin Chamber of Commerce
- Yao Yang – The Cross Church
- Eric Giordano – Wisconsin Institute for Public Policy and Service
- Kristine Gilmore – DC Everest School District

If you would like to contribute to the Community Engagement Fund to assist future students with their community engagement projects, please contact:

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Thank you for your support!

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Amy Prunuske, PhD
Course Director

Lisa Grill Dodson, MD
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Terri Walkush
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